Darrow, Christopher (Shld-LA-IP)

From:

Wenskay, Donald [Donald.Wenskay@disney.com]

Sent:

Monday, April 22, 2002 2:57 PM

To:

darrowc@gtlaw.com

Subject:

New provisional application: "Streaming of Digital Data to a Portable Device"

Follow Up Flag:

Follow up

Due By:

Tuesday, June 11, 2002 10:00 AM

Flag Status:

Flagged

Chris,

I'm sending by overnight mail a new invention disclosure. We need to file a provisional in the next week or so. We have a number of companies interested in licensing this technology, and they want to show it to them. This invention is an extension of the provisional you filed on 12-4-01 entitled "IR Triggering of Portable Devices", file number OWD #20433-16.

The main difference is that this version can receive and display (stream) the data in real time. In the 12-4-01 application all the data had to be previously stored in the portable device before it could be displayed.

Also, several new variations are disclosed, as well as Rf versions.

I would like to file this with a very brief background and summary section, plus some claims. I don't believe we did this for the 12-4-01 filing.

There will be some additional disclosure coming in a day or two, but I thought it would help to get the main disclosure in advance, to get started on it.

Please call me if you have any questions.

Thanks,

Don

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Greenberg Traurig

Date Printed: 6/1/2007

Page: 1 By: SchombergH MATDETL Database: CMSOPEN

Grouped by Matter

Matter Time and Disbursement Details

Time From: 010100 to 12/31/2002 Disbursements From: 010100 to 12/31/2002

Client Code: 054317
Matter Code: 011200
All Job Titles
All Cost Codes
All Action Codes
Statuses: Billed

	Time ID Disb ID	Bill Num Bill Date	Base Hrs/Qty	Base Amount	Rate	Std. Amount	Amount Status Narrative	Narrative	
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054317 The W	The Watt Disney Company				Bill Atty:	CPD	Bill Atty: CPD Darrow, Christopher		Client Last Payment: May 18 2007
011200 Stream	Streaming of Digital Data to a Portable				Resn Attv	Resn Affiv. CPD	Darroux Christopher		

Preparing the provisional application and considering the prior art found in the IR Trigogening inventions which may be applicable to this invention; discussions with the inventor Bill Wiedefeld about the streaming and triggering inventions and the prior art that may be applicable to both; discussing the triggering inventions and considering whether to file two applications or one, discussion about eliminating one of the Exhibit D embodiment of the triggering provisional application Preparing a new provisional application regarding the streaming of digital data to a portable device Preparing provisional application including reviewing materials provided by the inventor and correspondence with Mr. Wenskay Preparing provisional application, reviewing prior art regarding streaming of captioning data Evaluating the pending provisional applications and related disclosures and considering how best to cover the technology in non-provisional patents Disney matters generally. Distribute generally among the Margo matters Studying the disclosure, and preparing provisional application Preparing patent application and claims 8 2.40 1.80 6.00 80 2.80 99 2.80 10/23/2002 11/22/2002 6/26/2002 6/26/2002 6/26/2002 6/26/2002 7/24/2002 8/28/2002 902818 902818 952423 966799 902818 902818 914563 927757 11815658 11814388 11814553 11814776 11831735 25461878 11851676 11822374 Darrow, Christopher TKPR Name Detailed Time Section (Matter) ₹b. CPD CPD CPD CPO CPD CPO CPO CPD 10/25/02 4/24/02 5/10/02 6/18/02 7/31/02 5/8/02 5/9/02 8/8/02

Matter Summary For 011200 Streaming of Digital Data to a Portable

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Base Hrs/Qty	Fees	Disb	Total

Greenberg Traurig

Matter Time and Disbursement Details

Date Printed: 6/1/2007 Page: 2 By: SchombergH MATDETL Database: CMSOPEN

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Date

Time From: 010100 to 12/31/2002 Disbursements From: 010100 to 12/31/2002

Client Code: 054317 Matter Code: 011200 All Job Titles All Cost Codes All Action Codes Statuses: Billed

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Time ID Disb ID	The Walt Disney Company				
	The				

Client Summary For: 054317

Darrow, Christopher (Shld-LA-IP)

From:

Darrow, Christopher (Shld-LA-IP)

Sent:

Friday, May 10, 2002 5:17 PM

To: Subject: Donald Wenskay (E-mail)

Provisional Application - Streaming of Digital Data to a Portable Device

Hi Don,

How was the vacation? Here's something for you to look at as you settle back into work mode. It includes a few claims, but we could add a lot more. Actually, this gets us pretty close to a non-provisional application, so depending on your time constraints, we could consider finishing this as a formal application. Your email dated April 22 mentioned that "There will be some additional information coming in a day or two", but I did not receive any information other than the overnight package you sent on April 22.

Your comments will be appreciated.

Best regards, Chris



2VZ001!.DOC

PS Here is my new contact information and a vCard, which you can import into Outlook if you use that.

Christopher Darrow Greenberg Traurig, LLP 2450 Colorado Avenue, Suite 400E Santa Monica, CA 90404

Phone 310-586-7895 (direct) Fax 310-586-0295 (direct) darrowc@gtlaw.com www.gtlaw.com



Christopher Darrow

PROVISIONAL APPLICATION STREAMING OF DIGITAL DATA TO A PORTABLE DEVICE

BACKGROUND

1. Field of the Invention

The present invention relates generally to the use of infrared and/or radio frequencies to stream digital data to portable devices in a mass audience or in designated broadcast area.

2. Description of the Background Art

There are several circumstances which may interfere with a person's ability to hear, and thereby interfere with the presentation of information to the listener. For example, persons with hearing loss may miss narratives, sound effects, music and other sound material related to the presentation, and messages in live performances, films, television and special events. Persons who do not speak the language or languages used in the presentation may miss narratives and other related messages that are presented. The language barrier prevents many people from different cultures and languages from understanding, participating or interacting with the information being presented. Background environmental noise may also affect a person's ability to hear, and thereby diminish the effect of the presentation. Additionally, presentations often could be made more effective if they included a method to provide interactivity between the audience and the presenter(s).

Captioning systems have been used in many venues including museums, theaters and other auditoriums to provide foreign language translation or captioning for the hearing impaired. These systems are either 1) "open captioning" on a projected surface or large adjacent display area where the entire audience can see the captioning; 2) reflective captioning using a transparent but reflective panel to display the text from a rear projection while allowing the viewer to see the display or performance through the panel; or, 3) hard-wired displays in the back of the seat in front of the viewer.

It is therefore an object of this invention to provide a method of presenting random and/or synchronized information (narratives, translations, interactive games, control signal commands or other show related messages) to patrons of shows, movie theaters, exhibit halls/auditorium and/or designated areas through an unobtrusive device.

SUMMARY OF THE INVENTION

The present invention makes use of infrared (IR) emission and/or radio frequency (RF) transmission to stream data to a portable device for closed captioning, language translation for multi-cultural language groups, previews, games, control of devices and/or similar applications. The portable captioning device could be carried by a person and/or the device could be placed in a fixture for hands free use. Before or at the time of the

start of a presentation or presentations, the IR/RF system will start the transmission of data to the portable units. The transmission will synchronize the portable device with the presentation or presentations for captioning, language translation, previews, games, control of devices and/or similar applications. The portable device might be based on existing technologies such as mobile phone, personal digital assistant (PDA) or a combination of both mobile phone and PDA, a custom designed device specifically for this application, or an interactive device. This system can be combined with an existing audio stream for the hearing impaired, descriptions for the blind and/or language translation. For example, the invention may provide for infrared streaming for assistive listening systems.

BRIEF DESCRIPTION OF THE DRAWINGS

- Fig. 1 is a schematic view of a system of the invention utilizing IR signals.
- Fig. 2 is a schematic view of a system of the invention utilizing RF signals.
- Fig. 3 is a schematic view of a portable display device receiving an IR signal.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The hardware requirements of the preferred embodiment of this system are depicted in Figs. 1 and 2. A time code reader 10, which in this embodiment is an optical time code reader, is capable of reading time codes from a show device 12 such as a film projector, show control computer or another media source. A central processing unit (CPU) 14 receives the time code signal from the reader 10 and synchronizes the content with the film and/or presentation, which may be a movie screen 15. Examples of content are text captioning, language translation, games and/or other related applications. The central processing unit 14 has the capability to access and interpret the content. The content can reside on the internal memory of the central processing unit 14 and/or as a removable memory media.

The CPU 14 will deliver the synchronized data to the infrared (IR) emitters 16, which are capable of delivering IR messages or control data to a portable device 18, which may be operated either in an indoor or outdoor environment. Alternatively, a low-powered licensed and/or non-licensed radio frequency (RF) system can also be used to deliver the synchronized data to the portable device via an RF signal. Fig. 2 depicts an RF receiver 24 and RF transmitter 22, which interact with a portable RF capable device 24 to achieve the same results as the IR system previously described.

The portable display device 18, 24 has sufficient internal and/or removable memory to allow storage of all data to be presented. All required data may be transmitted to the device 18, 24 in one session for display at predetermined times or upon receipt of a start signal, or the data may be transmitted in a plurality of sessions for display in real time. The device 18 includes infrared ports capable of receiving and/or emitting infrared messages. Messages emitted from the portable display device 18 are read by one or more IR detectors 19. In an alternative embodiment, the device 18 could also contain RF

receiver and/or transmitter ports capable of receiving and transmitting RF messages. The portable device 18 will receive the IR signal and convert the signal to information that can be stored and/or displayed in sync with the presentation. The device 18 and 24 may also contain the capability to receive and play audio such as for assistive listening and/or audio language translations, or program material specific to the presentation.

The system could also recognize show/presentation start and/or end signals. The system could then transmit random and/or synchronized information to the patrons possessing a device. This will allow the patrons to interact with the device while waiting for the show/presentation to start or after the show/presentation has ended.

One possible application of the invention is depicted in Fig. 3. In this application, time code information is read by the CPU 14, which then accesses on board content available in memory, and delivers the synchronized data to the infrared emitters 16, which are in turn capable of delivering IR messages. A portable device 24 receives the IR messages and converts the IR messages to presentable data. In this instance, the IR receiver 19 is a modification to an existing device such as a PDA (for example, a Palm type device) and/or a pocket PC (for example, a Compaq iPAQ) that can store and/or immediately display the data. The IR receiver takes the IR signal from the emitter and translates it to an electronic signal for the serial port 22 of the PDA and/or pocket PC. A terminal software program converts the electronic signal into data that is presented as text on the display screen 26.

This invention may be adapted for uses such as text captioning and language translation in movie or live theaters, consumer products which can provide an interactive experience, and to provide a wireless link for control signals to equipment, devices or products which are used in public presentations.

CLAIMS

1. A method for displaying content data on a readable display in conjunction with a media presentation comprising the steps of:

displaying media presentation data, said media presentation data including time prompts;

said content data having sequences correlated to the time prompts;

detecting the time prompts in the media data; and

transmitting to the readable display the sequence of content data associated with a detected time prompt.

The method of claim 1 wherein the transmitting is by way of an IR signal.

The method of claim 1 wherein the transmitting is by way of an RF signal.

The method of claim 1 wherein the transmitting is by way of a wired connection.

The method of claim 1 wherein the media data is prerecorded.

The method of claim 1 wherein the media data is a live performance.

The method of claim 1 further including the step of storing the content data in a memory device.

The method of claim 1 wherein the time prompts are optically readable.

2. A method for presenting content data on a readable display device comprising the steps of:

providing content data to be displayed at a predetermined time; providing time prompts on a film; detecting the time prompts on the film; correlating content data with the time prompts; and at a given time prompt, sending the correlative content data by IR signal to the display device.

3. A method for displaying content data on a readable display comprising the steps of:

providing content data to be displayed at a predetermined time; providing media presentation data having time prompts; said content data correlated with the time prompts; detecting the time prompts in the media presentation data; at a given time prompts, transmitting the correlative content data to the readable display; and

displaying the content data on the readable display.

4. A method for displaying information on a readable display comprising the steps of:

storing information to be displayed at a predetermined time; displaying media data, said media data including time prompts; said information correlated to at least one of the time prompts; and at a given time prompt, transmitting the correlative information to the readable display.

5. A method for interactive communication in conjunction with a media presentation comprising the steps of:

providing a content display device having a readable display; storing content data for display; presenting media presentation data having time prompts; said content data having sequences correlated to the time prompts; detecting the time prompts in the media presentation data; transmitting to the readable display the sequence of content data correlated with a detected time prompt; and

providing inputs on the content display device adapted to receive information from a viewer.

- 5. An apparatus for streaming digital data to a portable device during a media presentation comprising:
 - a memory device storing the digital data prior to transmission;
- a readable display on the portable device on which the digital data is displayed after transmission;
 - an IR emitter transmitting the digital data;
 - an IR receiver on the portable device receiving the digital data;
 - time prompts in the media presentation;
 - a time prompt detector;
- a data processor associating the detected time prompts to the digital data according to predetermined rules; and

transmitting digital data correlated with the time prompts from the IR emitter to the IR receiver.

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Telecopier Cover Sheet

Date: May 21, 2002

To: Tom Craven *FAX #:* 407-566-5136

To: **Greg Hale** *FAX #:* **407-824-7576**

To: Phu Nguyen *FAX #:* 407-824-7403

From: Don Wenskay FAX #: 818-557-8440 Phone: 818-560-8973

Total Number of Pages (including this cover sheet): 6
If you do not receive all of these pages, please call 818-560-8953 or tie line 8228-8953.

Comments

Please review the attached provisional application prepared by Chris Darrow at Greenberg Traurig, LLP and let me know if you have and questions or comments. Note that this document is based on the materials attached to your memo of 4-19-02.

Kindly let me know if there is any additional technical information that should be added.

Thank you.

Don

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providing content data to be displayed at a predetermined time; providing time prompts on a film; detecting the time prompts on the film; correlating content data with the time prompts; and at a given time prompt, sending the correlative content data by IR signal to the display device.

3. A method for displaying content data on a readable display comprising the steps of:

providing content data to be displayed at a predetermined time;
providing media presentation data having time prompts;
said content data correlated with the time prompts;
detecting the time prompts in the media presentation data;
at a given time prompts, transmitting the correlative content data to the readable display; and

displaying the content data on the readable display.

4. A method for displaying information on a readable display comprising the steps of:

storing information to be displayed at a predetermined time; displaying media data, said media data including time prompts; said information correlated to at least one of the time prompts; and at a given time prompt, transmitting the correlative information to the readable display.

5. A method for interactive communication in conjunction with a media presentation comprising the steps of:

providing a content display device having a readable display; storing content data for display; presenting media presentation data having time prompts; said content data having sequences correlated to the time prompts; detecting the time prompts in the media presentation data;

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a memory device storing the digital data prior to transmission;

a readable display on the portable device on which the digital data is displayed after transmission;

an IR emitter transmitting the digital data;

an IR receiver on the portable device receiving the digital data;

time prompts in the media presentation;

a time prompt detector;

a data processor associating the detected time prompts to the digital data according to predetermined rules; and

transmitting digital data correlated with the time prompts from the IR emitter to the IR receiver.

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1) HANG UP OR LINE FAIL 2) BUSY

3) NO ANSWER

4) NO FACSIMILE CONNECTION

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